



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,187	12/06/2001	Reginald W. Hunter	AMAT/5970.03/CPES/CORE EN	8852
32588	7590	11/20/2003	EXAMINER	
APPLIED MATERIALS, INC. 2881 SCOTT BLVD. M/S 2061 SANTA CLARA, CA 95050				
			ART UNIT	PAPER NUMBER
			1744	

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/006,187

Applicant(s)

HUNTER ET AL.

Examiner

Terrence R. Till

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18 is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Art Unit: 1744

DETAILED ACTION

1. This application is in condition for allowance except for the following formal matters:

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: In figure 1, reference characters 40, 42, 22a, 22b, 26a, 26b and 24 are not found in the specification. Reference character 604 is not found in the specification either. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "601" has been used to designate both air knife and the chamber body. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: On page 18, line 17, "patters" should be --patterns--.

Appropriate correction is required.

Allowable Subject Matter

5. Claims 1-18 are allowed.

Art Unit: 1744

6. The following is an examiner's statement of reasons for allowance: With respect to claim 1, the prior art does not disclose nor render obvious the claimed combination of at least one processing enclosure having a particle removal assembly positioned therein, the particle removal assembly comprising: a substrate support member; a broadband actuator in communication with the substrate support member; and an air knife assembly positioned proximate the substrate support member, the air knife assembly being configured to generate a high pressure laminar flow of gas across the surface of the substrate; a substrate transfer enclosure in communication with each of the at least one processing enclosures; at least one substrate supply source in communication with the substrate transfer chamber; and at least one transfer robot positioned in the substrate transfer enclosure, the transfer robot being configured to transfer substrates between the at least one substrate supply source and the at least one processing enclosure. These elements, in combination define over the prior art. With respect to claim 9, the prior art does not disclose nor render obvious the claimed combination of a processing system for cleaning contaminant particles from a substrate a factory interface enclosure; at least one substrate pod loader attached to the factory interface enclosure; at least one substrate transfer robot positioned in the factory interface enclosure; and at least one substrate cleaning assembly positioned to receive substrates from the at least one substrate transfer robot, wherein the at least one substrate cleaning assembly comprises: a substrate support member; a broadband actuation device in communication with the substrate support member; and a particle removal device configured to sweep away dislodged particles from an area proximate the substrate surface. These elements, in combination define over the prior art.

Art Unit: 1744

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Jysky et al., Shortes et al., Iwatsu et al., Dyer, Wada et al., Kimura et al., and Kim show the current state of the art.

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to T. Till whose telephone number is (703) 308-1592.


Art Unit: 1744

Any inquiry of a general nature concerning the status of this application should be directed to the receptionist of Technology Center 2 whose telephone number is (703) 308-0661.

Any responses made by facsimile should be addressed to T. Till at (703) 872-9310.

In mid-December of 2003, the examiner will be moving locations and changing phone numbers. The following information will apply:

New phone number: (571) 272-1280


TERRENCE R. TILL
PRIMARY EXAMINER
ART UNIT 1744

trt
November 17, 2003